



# Lake Erie Harmful Algal Bloom Bulletin

11 July, 2019, Bulletin 04

## Analysis

Cyanobacteria is present in Lake Erie at low concentrations. Satellite imagery from 7/9 and sampling from 7/8 confirms that *Microcystis* is present in Maumee Bay and along the Michigan coast. Measured toxin concentrations are below recreational thresholds throughout the bloom extent. The persistent cyanobacteria bloom in Sandusky Bay continues. No other blooms are present in Lake Erie.

## Forecasts

Forecast winds (5-11kn) today through Saturday (7/11-13) may promote mixing, reducing surface *Microcystis* concentration. Eastward transport of surface *Microcystis* concentrations is predicted. —Jima, Davis

## Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: <http://publicapps.odh.ohio.gov/beachguardpublic/>

Ohio EPA's site on harmful algal blooms: <http://epa.ohio.gov/HAB-Algae>

NOAA's GLERL provides additional HAB data here: [http://www.glerl.noaa.gov/res/HABs\\_and\\_Hypoxia](http://www.glerl.noaa.gov/res/HABs_and_Hypoxia)

The images below are "GeoPDF". Please visit <https://go.usa.gov/xReTC> for instructions on viewing longitude and latitude.

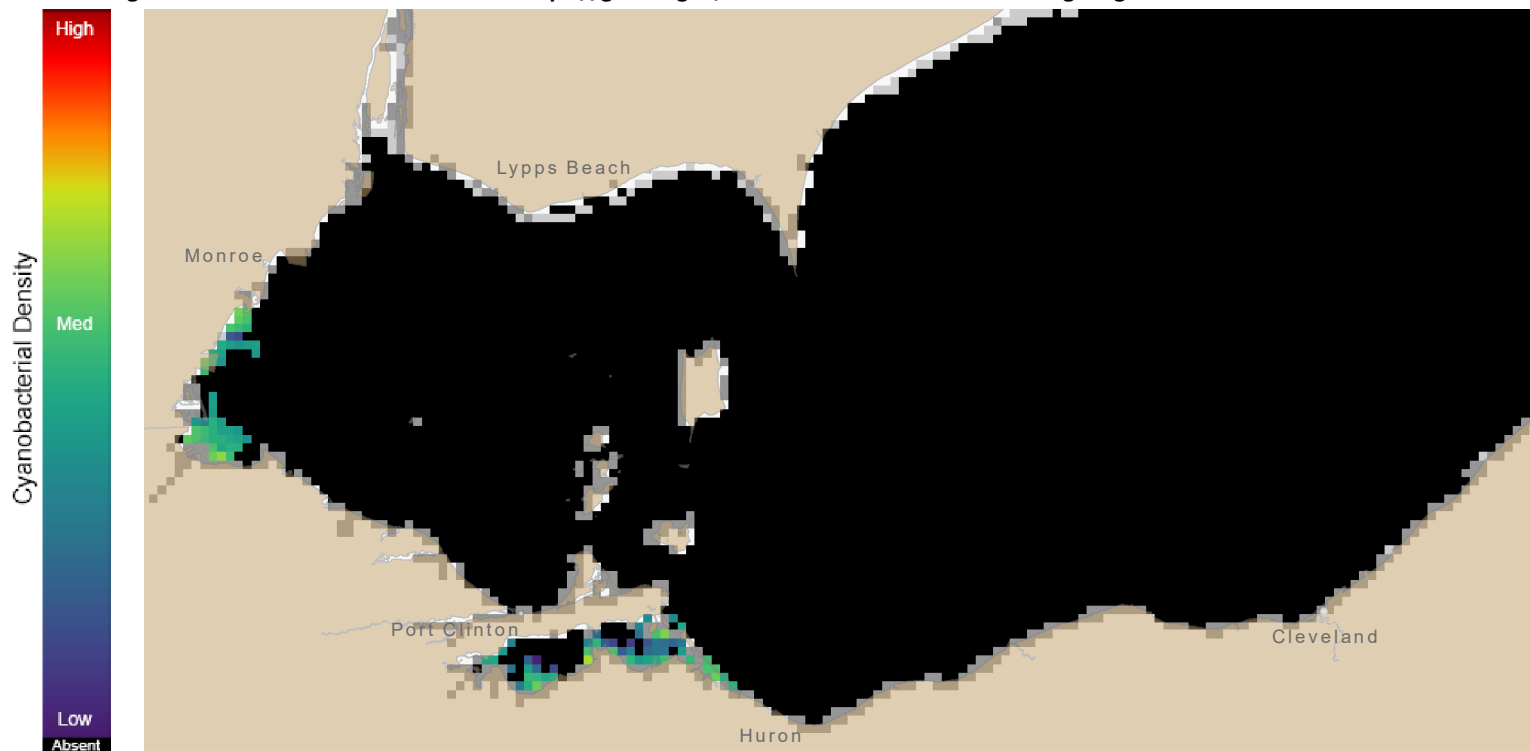


Figure 1. Cyanobacterial Index from NASA MODIS-Aqua data collected 09 July, 2019 at 13:07 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

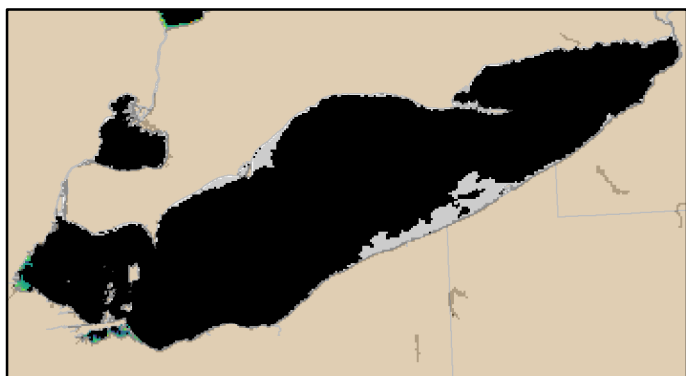
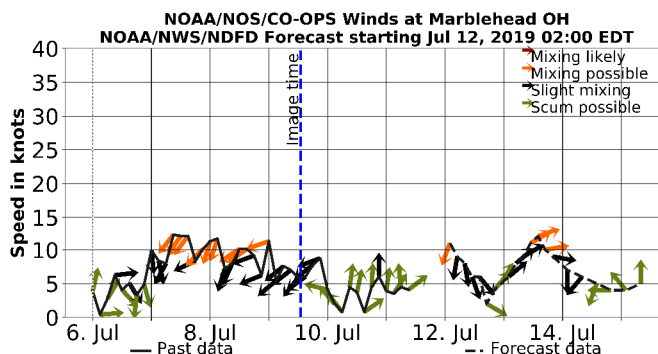


Figure 2. Cyanobacterial Index from NASA MODIS-Aqua data collected 09 July, 2019 at 13:07.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: <https://tidesandcurrents.noaa.gov/hab/lakeerie.html>

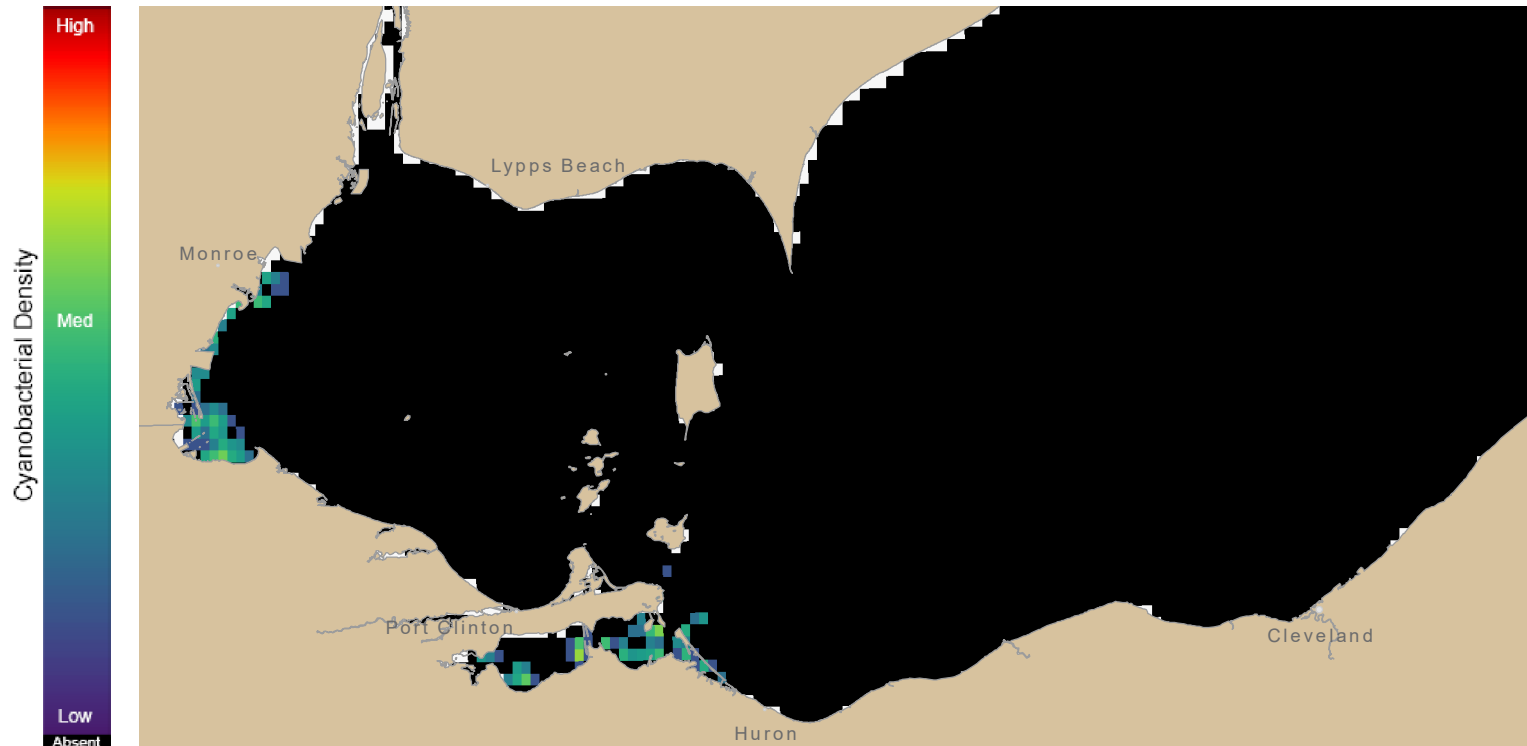


Figure 3. Nowcast position of bloom for 11 July, 2019 using LEOFS modelled currents to move the bloom from the 09 July, 2019 image.

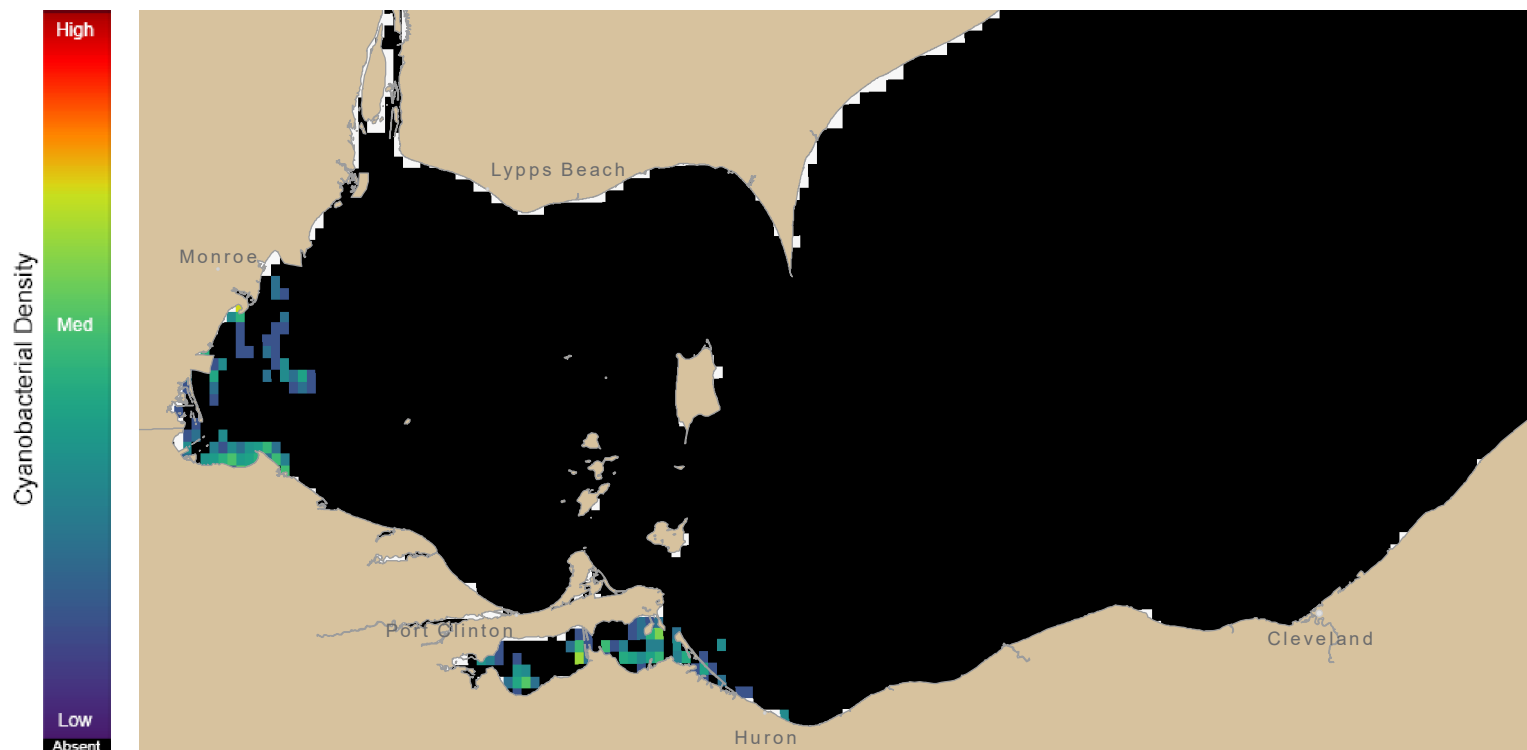
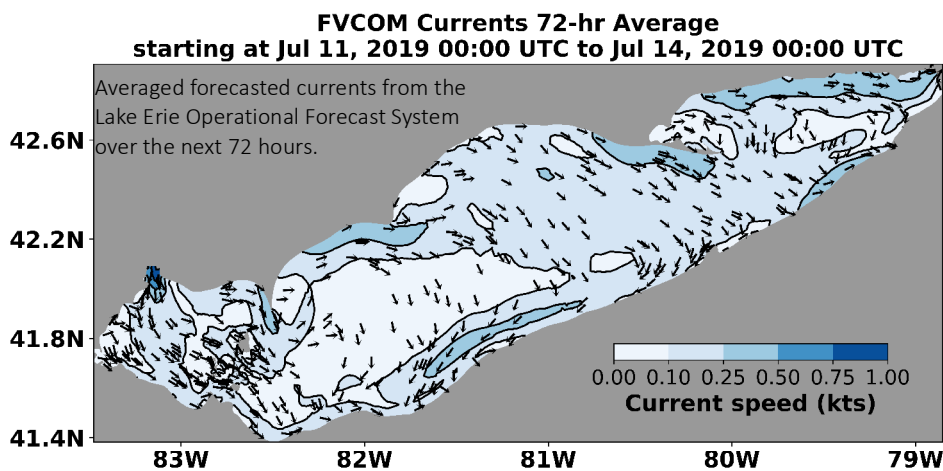


Figure 4. Forecast position of bloom for 14 July, 2019 using LEOFS modelled currents to move the bloom from the 09 July, 2019 image.



For more information and to subscribe, please visit the NOAA HAB Forecast page:  
<https://tidesandcurrents.noaa.gov/hab/lakeerie.html>